

Sub
G3
F2

34. (Twice amended) A base station in a cell of a cellular, wireless communications network for providing wireless, bi-directional communication with network interface units (NIUs) within the cell and for providing a point to point direct inter-cell radio link with a base station in a neighboring cell, the base station having an ATM multi-services switch equipped with a first radio interface card for providing the wireless, bi-directional communication between the base station and the NIUs and a second interface card for providing the direct point to point radio inter-cell link.

Sub
G4
F3

42. (Twice amended) A method of providing communications between base stations in a cellular, wireless network having multiple cells, each of the multiple cells having a base station, the method comprising providing an ATM multi-services switch at each of the base stations, each switch being equipped with a radio interface card for providing direct bi-directional communication with other base stations in the network; providing a network manager in association with at least one of the base stations for configuring the radio interface cards, and providing a directional antenna for each multi-services switch to support point to point bi-directional communication between base stations over a direct radio inter-cell link.

Add the following new claims:

Sub
G5
F4

-- 45. A scaleable, broadband wireless system for providing radio access to a metropolitan area comprising: a plurality of overlapping cell areas, each cell area having a base station and a plurality of fixed user sites having network interface units (NIUs) within each cell area,

ATM radio interface cards (ARICs) in each base station for implementing wireless, bi-directional communication between said base stations and user sites,

an ATM backplane at one of said base stations constituted by a plurality of ARICs, each base station ARICs being provided with implementing protocols for bi-directionally linking with the ATM backplane, said ARICs being adapted to operate on a multiple access protocol so as to provide point-to-point radio access between base stations over intercell links, and whereby the system can be scaled by adding ARICs to said ATM backplane as required to meet demand.

46. The broadband wireless system defined in Claim 45 wherein said base station ARICs operate on frequency division multiple access (FDMA) protocol.

47. The broadband wireless system defined in Claim 45 wherein said ARICs at the base station is operated under time division multiple access (TDMA) protocol.